DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
690 Walnut Ave.St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 13.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-003542
Date Inspected: 18-Aug-2008

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Oregon Iron Works Clackamas, Or.

OSM Arrival Time: 700
OSM Departure Time: 1530
Location: Clackamas, Oregon

CWI Name:	Don Cox			**CWI Present:**	☑ Yes	☐ No	
Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**Rod Oven in Use:**	☐ Yes	☐ No	☑ N/A
Electrode to specification:	☐ Yes	☐ No	☑ N/A	**Weld Procedures Followed:**	☐ Yes	☐ No	☑ N/A
Qualified Welders:	☐ Yes	☐ No	☑ N/A	**Verified Joint Fit-up:**	☐ Yes	☐ No	☑ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Approved WPS:**	☐ Yes	☐ No	☑ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: Hinge K components

Summary of Items Observed:

On this date, Caltrans Quality Assurance Inspector (QA) Danny C. White (B89) was present at Oregon Iron Works (OIW) for the purpose of monitoring fabrication and welding operations of the Hinge K Pipe Beam at the OIW fabrication and welding shop in Clackamas, Oregon.

The QA Inspector met with Certified Welding Inspector Mr. Don Cox and observed a stainless steel overlay repair procedure was performed by OIW Welding Operator Mr. Craig Jacobsen, welder identification (WID) J6. The QA Inspector observed Mr. Jacobsen utilized Lincoln welding machine with carbon dioxide gas at approximately 35 cubic feet per minute and performed the following flux cored arc welding (FCAW) test.

The QA Inspector observed Mr. Jacobsen deposit (30) weld passes in the flat position onto what appeared to be a tubular section remanent of the stainless steel Electo-slag overlay procedure qualification test previously performed. The QA Inspector observed that Mr. Jacobson utilized 1.6 millimeter (mm) diameter Lincoln 309L electrode and deposited (11) weld passes during the first weld layer. The QA Inspector then observed Mr. Jacobsen utilized 1.6 mm diameter Lincoln 316L electrode to deposit (10) weld passes for the second weld layer and (9) weld passes for the third layer.

The QA Inspector observed Mr. Cox as he monitored welding parameters. The QA Inspector verified the parameters that Mr. Cox recorded utilizing his Fluke 337 True RMS Clamp Meter and a stop watch. Upon completion of this test the QA Inspector was presented with electrode and gas certifications for the welding consumables utilized in the test mentioned above. The QA Inspector observed that the dewpoint is stated in the CO2 gas certificate of conformance (COC) was denoted to be -32 degrees Fahrenheit which does not appear to be

in conformance with the requirements of the American Welding Society (AWS) D1.6 welding code minimum of -40 degrees Fahrenheit. The QA Inspector informed OIW that the above mentioned test is did not appear to be within contract requirements for reason of the above mentioned issue.

Summary of Conversations:

The QA Inspector informed Mr. Cox that metric measurements are required for this job and the QA Inspector observed that all of the welding parameters were recorded in US Customary units.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Ryan Smith, (858) 232-6799, who represents the Office of Structural Materials for your project.

Inspected By:	White,Danny	Quality Assurance Inspector
Reviewed By:	Wright,Mark	QA Reviewer